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Fig. 1

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-9  cggatgaagaatgggtgtattttttaatttcattgtcaataaccaatgtcccgggtgctgaag
      M V Y F L N F M S I T N V P V L K
52  cgcgcgcgactctacatggcgacgaatcgccggctgggtggtgttcttgggtgctgctg
      R A R L Y M A T N R R L V V V L V V L L
112 tactgggtggtccagaacgtttggacgtggagccctgggacgcgcgatttggccaagtg
      Y W V V Q N V W T W S P G T R D L A Q V
172 gacgcgaagatcgaggccgagctaaactcgaatctacatacttttgagcgcatttgcgc
      D A K I E A E L N S N L H T F G A H L R
232 cacttaaaccggcttccggcagagtcggccaccctgcgtgaaaaactcaccttctatttc
      H L N R L P A E S A T L R E K L T F Y F
282 ccatattatcctgaaaagcccggtgccgaaccagatctggcagacatggaaggtcgatctc
      P Y Y P E K P V P N Q I W Q T W K V D L
352 gaagacgacaacttccccaagcagtagacagcgggttcagaagacgtgggtcgagaaaaat
      E D D N F P K Q Y R R F Q K T W V E K N
412 ccagactacgtgtaccacctgattccggactctgtgattgaggactttgtggcgagtttg
      P D Y V Y H L I P D S V I E D F V A S L
472 tacgcgaacgtgccggaggtgggtcagagcgtaccagctgcttcgaaaaatatcatgaag
      Y A N V P E V V R A Y Q L L P K N I M K
532 ggcgattttttccggtatttgggtgatctacgcgcgcggaggcacctactcagacatggac
      A D F F R Y L V I Y A R G G T Y S D M D
592 acggtgtgtttaagccgatcaaggactgggccacgtttgatcgacacgtgatccacgct
      T V C L K P I K D W A T F D R D L I H A
652 gccgacaataaggccgatctctcccagatagatccagaagcaagaaccacgcctgtgggg
      A D N K A D L S Q I D P E A R T T P V G
712 ctggtgattggcattgaggccgaccggacaggcccgactggcacgagtggttctcgcg
      L V I G I E A D P D R P D W H E W F S R
772 agactgcagttctgccagtgacgatccaggcgaagccgggacacccgctgctgcgcgag
      R L Q F C Q W T I Q A K P G H P L L R E
832 ctgatcatccggatcgtggaggagacgttccgaaaacagcacatggcggttttgaaga
      L I I R I V E E T F R K Q H M G V L K R
892 gtggaaggcaaggactcgggcgcagatatcatgcagtggacaggaccggggatatttaca
      V E G K D S G A D I M Q W T G P G I F T
952 gacactctgtttgattatctgaacaatgtggcgagcgacggcaagtggggcgacgggtac
      D T L F D Y L N N V A S D G K L G D G Y
1012 ggcgtggggctcgttgatttggcgcaagcacggcaaatataagctgaaaaagacagaaatt
      G V G S L Y W R K H G K Y K L K K T E I
1072 aacaagaataacgagccatttgcattctgaggaccagcttatcaactggaggtcgctgacc
      N K N N E P L H S E D Q L I N W R S L T
1132 aacatggacaagccaaagatcatgggggacgtaatgggtgttaccatcacgagctttagt
      N M D K P K I M G D V M V L P I T S F S
1192 ccgaacgtggggcacatgggctcaaagagcagctcagataggctggcatttgtggagcat
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1252 ttattttctggcagctggaagccaaaaacaatataggaaaaataaataattagctgcatt
      L F S G S W K P K N K -
1312 ttagataattctcatgagcaggcacagaacg

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Fig. 2

Ho0ch2p 1 -----MVYFLNFMSTITNVPVLKPARNYMATNRRLVVVLVLLVYVV
 Ho0ch1p 1 -----MSKASPYRGINSTSSSTSPKPKKLSHFGCLLL
 Ca0ch1p 1 -----MLQLREPQMVHKKHKLAVLGIWVIFTTYFISSSL
 Pp0ch1p 1 -----MAKADGSLYYNPNPNPPRRYFFYATFAV
 Sc0ch1p 1 -----HSRKLSHHIAIRKSKTIWVTVLITYSLL
 Sp0ch1p 1 ----MLRLRLPSIVIGAAIAGSILLFNHGSIEGHEDLTEISHLEKYDPEAANKDYVGCQREEREDAYDQP

 Ho0ch2p 42: QNVWTUSPCTFDLAQVDAKIEADLN---SNLHTFCAGLR-----HLNRLPARSATILREKLTTFYFPY
 Ho0ch1p 32: GLHLFKSTSTWSINTKIVSYDN---NFKYKLNPRFRG-----ANPYDAAWTAERLAKRFPY
 Ca0ch1p 35: ESPTSTHRTKYNSPKLQAKLELDN---SNWKLGLNFPQ-----NKKYSLPDSTLRQCLFYQFPY
 Pp0ch1p 30: SVMCVLYCPSQOLSSPKDYQPLTL---PSLDLKLLEAP-----SOLSPCTVEDNLRCLEERFPY
 Sc0ch1p 29: TFLHLSNKRLLSRFYPSKDDFKQTLPTTSHSQDINLPRQI-----TVNRKKNLHNLKQCLSPFPY
 Sp0ch1p 67: SYHEEEDPDLEAYLSDLEPBLEHSLLELDKENNYSLHLRYSFSQLQDFEENRAVHLLVPEDTYEEV

 Ho0ch2p 100: Y-PENFVFNQIQITQWQLEDDNFPCYERENQKNAV---ENPDVYVHLIPDSVIEDVWASLYAN---VPEWV
 Ho0ch1p 87: LNSARPTKSTIUCWQWNPSTDPDFPKKLVNKKNE---MPTKYNLLTDREILRLRPEKDT-VPEWV
 Ca0ch1p 94: R-ESEHFKNIQITQWQCIDKSFPPKYLKQOQFUE---DPMQYKRYVWPKQCDLIREQLYSQ---VPEWV
 Pp0ch1p 88: R-SYRFFHQHQQITQWQSPSSSFPDFDLGESHLL---QESPDYDFVTPDDAAWRLTHEYER---VPEWV
 Sc0ch1p 91: R-SOAPVHQRWQITQWQCADRKNFSSSTRTYKQUSCSYSPDQYSLHSRSTIPLENNAP---WVWV
 Sp0ch1p 137: P-YHADLKKLIQITSKDP-----EDREVHRTFRIR---INHESSEAVIDDQSKAWISSECDSSSKUS

 Ho0ch2p 166: RAYCLLPKNIKADFFRYLWIYARGCYSDMTNCKPIEDMATEFDRLIHAADNK-----ADLSQI
 Ho0ch1p 153: RAFEHLNPKILRSDFARKLLILNCGVYADITDLOKPVITMFDSDRNVGF-----
 Ca0ch1p 160: RAYRILPKSILKADFFRYLLELFAKCCYVTDITDGLKMDREMSNSKMLKKN-----
 Pp0ch1p 154: RAFEHLNPKILKADFFRYLLELFAKCCLYADITDMLKPIESMLTFNETHGVKN-----
 Sc0ch1p 158: RAYRILPKSILKADFFRYLLELFAKCCYSDMTNCKPIESMPSQNKSWLNNITDINRIPYKNSKPSLL
 Sp0ch1p 200: RAYRILPKSILKADFFRYLLELFAKCCYSDMTNCKPIESMPSQNKSWLNNITDINRIPYKNSKPSLL

 Ho0ch2p 228: DPEARITPWSIVICIEADPDPRDMDHWRSPRIQFCQWTTQAKRPHPLRLRLIRIVREPR
 Ho0ch1p 204: -----VVAVEEDINVEBQREHRTPRIOFEQWTFKARAKHPLRLRLIRIVREPR
 Ca0ch1p 214: -----RSLWVCIHADPDPRDMDHWRSPRIQFCQWTTQAKRPHPLRLRLIRIVREPR
 Pp0ch1p 208: -----NACLWVCIHADPDPRDMDHWRSPRIQFCQWTTQAKRPHPLRLRLIRIVREPR
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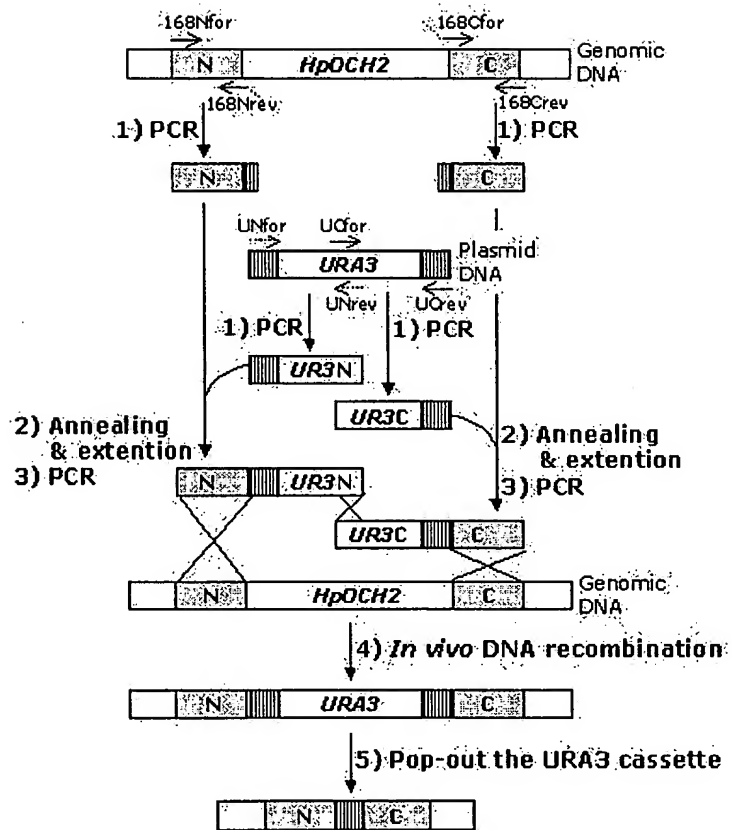
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 Pp0ch1p 262: -----RQHMVLRVEGEDS-----CADHINQWTCPCIFDTDTLEDMYRWASD
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 Sp0ch1p 304: -----LHD SKQLSKNGES-----GLRNTCPGIFSDILEYIMMLRYNSDIL

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 Ho0ch1p 307: DHQPDHACELYC-----PETGEGDVTSMPPFACIRABVMDVWVY
 Ca0ch1p 310: ---PRFPKNNKK-----W-----ATIDWELFTCHQOHLADDDVWL
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 Sp0ch1p 341: -----FSVENIDMLREBYLACDWHV

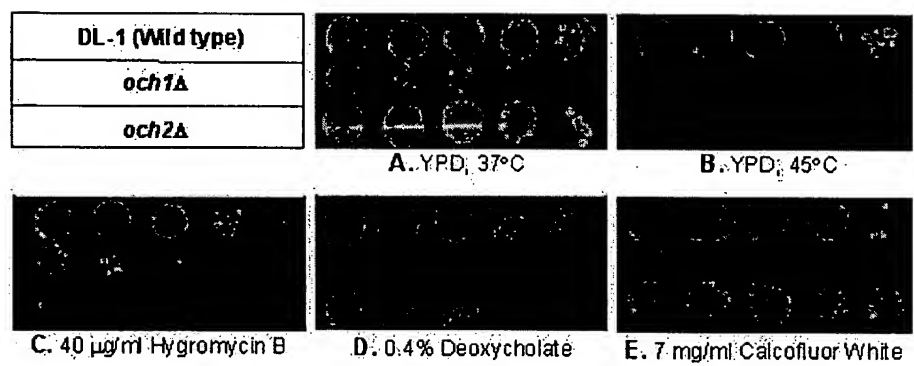
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 Ho0ch1p 348: PRASFREDK-----ENNCGRYQVHHPFCSSMKNCKKIKPKMGECYEGEDPNEVRELKNDVSKRDVIP
 Ca0ch1p 344: PITSPSPNCHMCKSSSRILAPVHLFSCSMKPRNK-----
 Pp0ch1p 371: PITSPSPNCHMCKSSSRILAPVHLFSCSMKPRNK-----
 Sc0ch1p 438: PITSPSPNCHMCKSSSRILAPVHLFSCSMKPRNK-----
 Sp0ch1p 362: PITSPSPNCHMCKSSSRILAPVHLFSCSMKPRNK-----

 Ho0ch2p 413: GSKDVAPVKGLAKRCAYPTPY 100%
 Ho0ch1p 27.3%
 Ca0ch1p 42.3%
 Pp0ch1p 40.0%
 Sc0ch1p 40.4%
 Sp0ch1p 30.8%

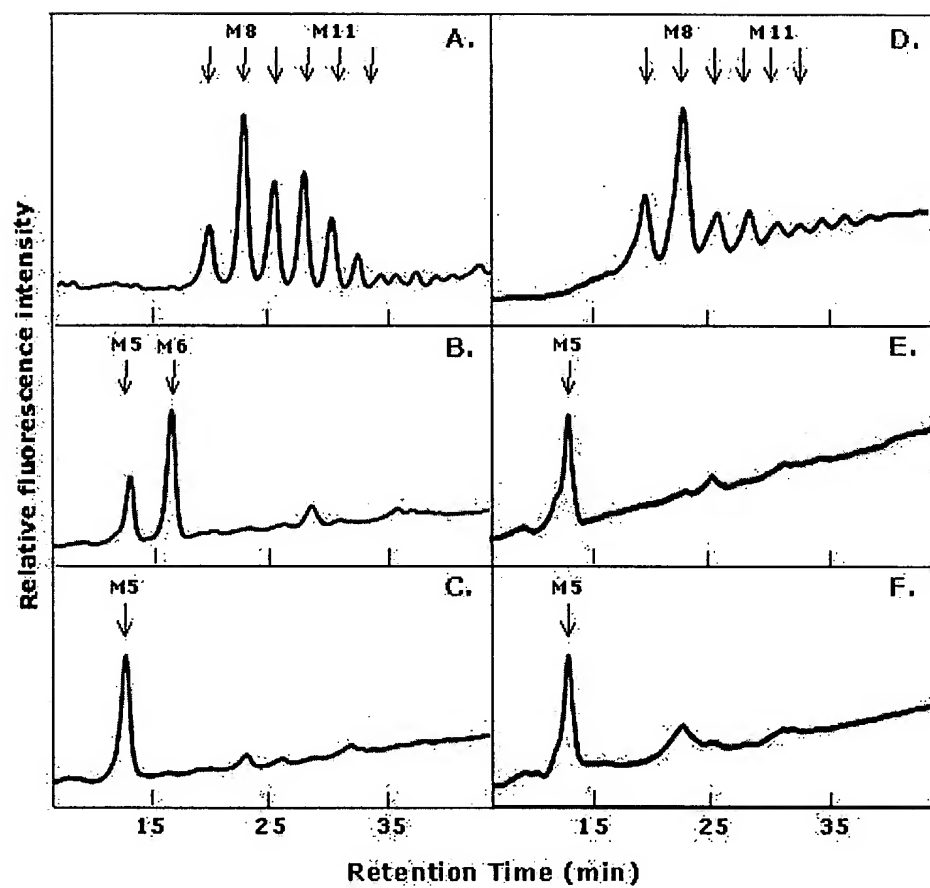
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Fig. 3



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Fig. 4

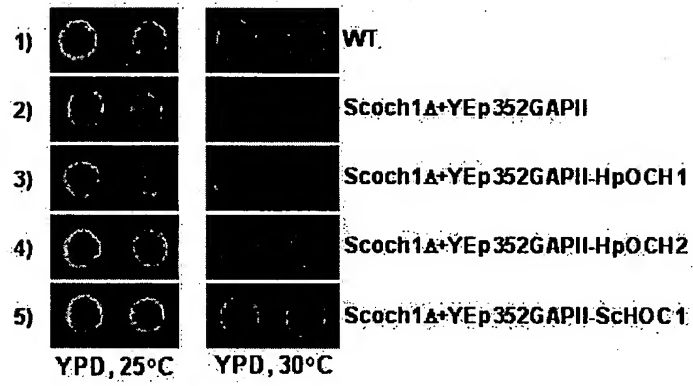


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Fig. 5

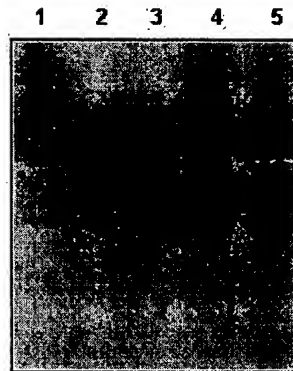


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Fig. 6

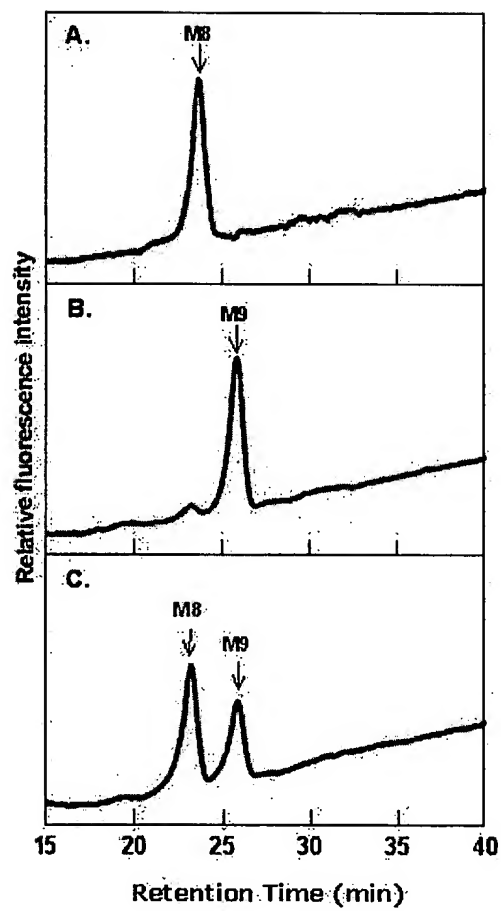
A.



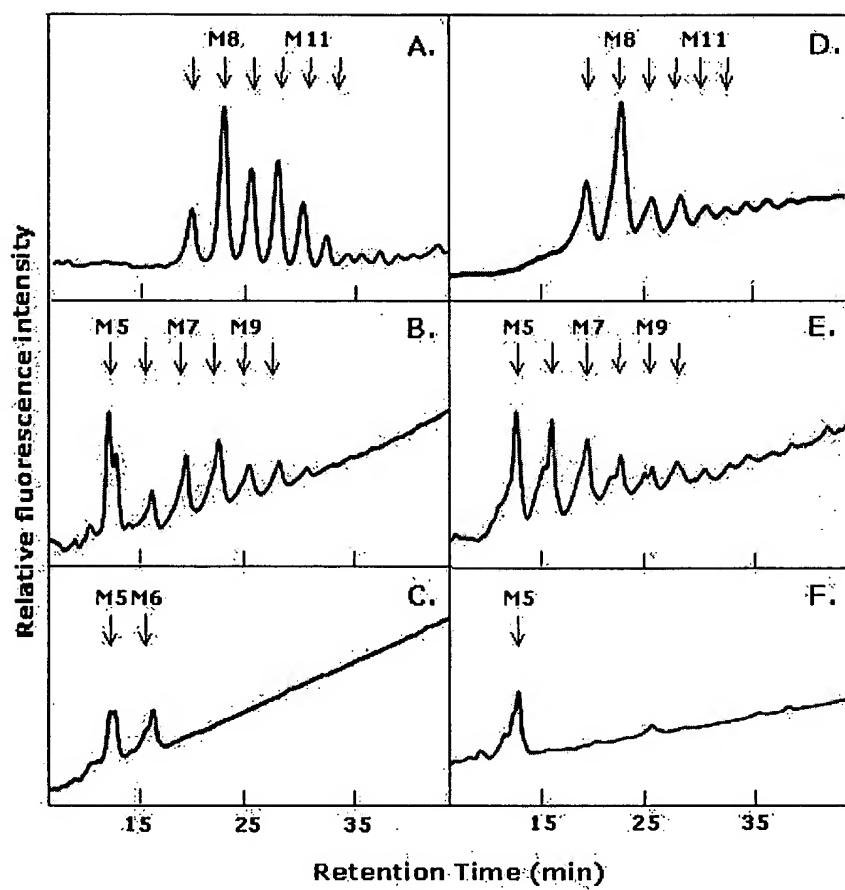
B.



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Fig. 7



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Fig. 8



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Fig. 9

	ScHoclp	ScOchl	HpOchl	ORF379	ORF168	ORF288	ORF580	ORF100	ORF576
ScHoclp (396 aa)		20	21	40	23	18	19	18	17
ScOchl (480 aa)	36		22	24	32	21	18	17	15
HpOchl (435 aa)	36	36		19	22	22	32	21	19
ORF379 (402 aa)	63	40	34		28	18	21	17	16
ORF168 (428 aa)	41	54	39	45		21	21	20	17
ORF288 (414 aa)	35	36	40	34	40		21	51	33
ORF580 (362 aa)	34	36	48	35	39	40		20	19
ORF100 (425 aa)	34	33	37	33	36	66	38		32
ORF576 (369 aa)	30	31	33	30	32	50	33	47	

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